

### **Remarks**

The examiner is thanked for the Official Action dated September 5, 2003. The applicant particularly appreciates the examiner's indication that claims 19 and 27 would be allowable if re-written in independent form. The examiner is also thanked for the personal interview on October 28, 2003. The examiner's efforts have greatly accelerated the prosecution of this application. For the purposes of the MPEP 713.04 requirements regarding the substance of the interview, the applicant concurs with the examiner's written comments recorded on the examiner's Interview Summary sheet (form PTOL-413, Paper No. 4). This amendment and request for reconsideration is intended to be fully responsive to the Official Action and the interview discussed above.

In the Official Action, claims 1 and 2 were rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent 3,368,804 to Swain. Claims 1, 4, 7, 8, 10-15, and 26 were rejected under 35 U.S.C. 102(b) as being anticipated by Japanese Patent JP 359 020 409 (hereafter JP '409). Claims 3, 5, 6, 9, 16-18, 20-25 and 28-32 were rejected under 35 U.S.C. 103(a) as being unpatentable over JP '409. As indicated above, the examiner indicated that claims 19 and 27 would be allowable if re-written in independent form.

Amended independent claim 1 claims a sensor 34 that measures a condition between a coal source 18 and a coal delivery point 14, as best shown in Figure 1 of the present invention. However, the system disclosed in JP '409 measures the temperature in the front portion of a tuyere 2, and is not associated with the measurement of a condition between a coal source and a coal destination, as best shown in JP '409 Figure 2. Further,

the signal produced by the system of JP '409 represents the presence (or absence) of burning coke accumulated in the front portion of the tuyere, and does not represent a flow rate of powder within a powder delivery tube.

Amended claim 1 also claims that a controller 38 is operatively connected to a sensor 34 and a first valve 28 for controlling the first valve 28, as best shown in Figure 1 of the present invention. However, Swain discloses a manual purge valve 27 that is not operatively connected to a controller or a sensor, as best shown in Swain Figure 1. Neither Swain nor JP '409 include the limitations of independent claim 1, as currently amended. It is submitted that the current amendments put claims 1-6 in condition for allowance.

Independent claim 7 claims a method of clearing an accumulation of coal in a coal tube, including monitoring a condition on an exterior surface of a coal tube. However, as discussed above, the system disclosed in JP '409 measures the temperature in the front portion of a tuyere, and is not associated with the measurement of a condition on the exterior surface of a coal tube. Additionally, there is no indication in JP '409 that the flow of coal powder is completely stopped when the system is purged, as also claimed in claim 7. It is submitted that claims 7-12 in condition for allowance.

Independent claims 13, 26, and 29, claim that, when the temperature sensed on the coal tube decreases below a pre-determined level, the coal delivery system is purged. However, the invention disclosed in JP '409 initiates a purge of the front portion of the

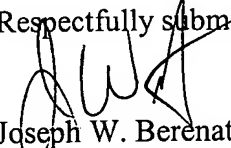
tuyere when the temperature sensed at the front portion of the tuyere increases above a pre-determined level. Although both the system of the current invention and the system of JP '409 automatically purge, the method of initiating the purge cycle claimed in the present invention is completely different than the initiating method disclosed in JP '409. Multiple other distinctions are also evident. JP '409 does not include the limitations of independent claims 13, 26, and 29, as claimed in the current invention. Further, the fundamentally different methods advanced by JP '409 relative to the present invention indicate that it would not have been obvious to one of ordinary skill in the art to modify JP '409 to include the limitations of the current invention. It is submitted that claims 13-17, 26-28, and 29-32 are in condition for allowance.

Independent claims 18 and 29 claim a purge system comprising first 28, second 30, and third 32 valves controlling selected movements of a purge fluid 24 in a coal lance 16, a coal pipe 20, and a purge tube 25, as best shown in Figure 1 of the present invention. However, the system disclosed in JP '409 contains only a single valve 8, that controls the purge of the front portion of the tuyere 2, as best shown in JP '409 Figure 2. Clearly, JP '409 does not include the limitations of the second and third valves, as claimed in independent claims 18 and 29. Further, because of its relatively limited function and design, JP '409 teaches away from a more complex valve system associated with controlling purge fluid throughout the coal delivery system. JP '409 particularly teaches away from the second valve 30 positioned in the coal pipe 20 between the purge fluid 24 and the coal source 18, as best shown in Figure 1 of the present invention. Clearly, it would not have been obvious to one of ordinary skill in the art to add two

additional valves to the system disclosed in JP '409. It is submitted that independent claims 18-25, and 29-32 are in condition for allowance.

It is respectfully submitted that the above amendments and comments resolve all outstanding issues and place this application in condition for allowance. Should the examiner believe that additional discussion would advance the prosecution of the present invention, he is encouraged to contact the undersigned at the phone number listed below. It is believed that no charges are due for this submission. However, if this is incorrect, then please debit Account 50-0548 and notify the undersigned.

Respectfully submitted,

  
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